



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/586,156

07/14/2006

Yasuyuki Arai

0756-7774

5647

31780

7590

05/11/2011

Robinson Intellectual Property Law Office, P.C.

3975 Fair Ridge Drive

Suite 20 North

Fairfax, VA 22033

EXAMINER

TAYLOR, APRIL ALICIA

ART UNIT

PAPER NUMBER

2887

MAIL DATE

DELIVERY MODE

05/11/2011

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/586,156	Applicant(s) ARAI ET AL.	
	Examiner APRIL A. TAYLOR	Art Unit 2887	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 January 2011.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-8,10-15,17-19,21-23,25-27 and 29-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8,10-14,19,21,22,27,29,30,33-35,39 and 40 is/are allowed.
- 6) ☒ Claim(s) 1,3-7,15,17,18,23,25,26,31,32 and 36-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 July 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/14/11; 1/21/11; 12/16/10</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Receipt is acknowledged of the Amendment filed 01/04/2011. Claims 1, 3-8 and 10-15, 17-19, 21-23, 25-27, and 29-40 are pending in the application.

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 12/16/2010 has been entered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 3, 7, 15, 17, 18, 23, 25, 26, 31, 32, and 36-38 are rejected under 35 U.S.C. 102(b) as being anticipated by Inoue et al. (JP 11-020360) (hereinafter Inoue), cited by the applicants.

Art Unit: 2887

Re claims 1, 3, 15, 17, 18, 23, 25, 26, 31, 32, and 36-38: Inoue teaches IC card including:

- a substratum (20);

- an antenna (18) provided over the substratum;

- an integrated circuit device (140) including a transistor, provided over and in contact with the substratum;

- an insulating layer (154) provided over the antenna;

- a wiring (141) provided on the insulating layer (paragraph 0161); and

- a separating sheet (120) provided over the wiring;

wherein the wiring is electrically connected to the antenna through a contact hole formed in the insulating layer (paragraph 0096);

wherein the antenna and the integrated circuit device are electrically connected through the wiring (paragraph 0101);

a cover (100) for covering at least a side of the substratum where the antenna and the integrated circuit device are formed, wherein the cover comprises resin and is formed by a laminating method;

a protective layer (142) comprising a single layer containing silicon oxide or silicon nitride or silicon oxynitride is formed on at least one of an upper surface and a lower surface of the integrated circuit device; and

- an adhesive layer (160) between the wiring and the separating sheet;

wherein the separating sheet (120) is configured to be peeled from the adhesive layer. (See figures 3, 4, 5, 15; paragraphs 0051, 0059-0071)

Re claim 7: Inoue discloses wherein a thickness of the integrated circuit device is 0.1 to 3 micrometers (paragraph 0062).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 4-6 rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue et al. (JP 11-020360) (hereinafter Inoue), cited by the applicants.

Re claim 4: Inoue discloses the claimed invention except for wherein the integrated circuit device is placed at a position of $(d/2) \pm 30$ micrometers or less when a total thickness of the integrated circuit device and the protective layers is d . It would

Art Unit: 2887

have been obvious to one having ordinary skill in the art at the time the invention was made to place the integrated circuit device at a position of $(d/2) \pm 30$ micrometers or less, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

Re claim 5: Inoue discloses the claimed invention except for wherein a semiconductor film of the transistor included in the integrated circuit device contains hydrogen or halogen of 0.0005 to 5 atomic %. It would have been obvious to one having ordinary skill in the art at the time the invention was made to form a semiconductor film containing hydrogen or halogen of 0.0005 to 5 atomic %, since it has been held to be within general skill of a worker in the art to select known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

Re claim 6: Inoue discloses the claimed invention except for wherein a size of the integrated circuit device is 0.09 to 25 mm^2 . It would have been obvious to one having ordinary skill in the art at the time the invention was made to form an integrated circuit device having a size of 0.09 to 25 mm^2 , since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

Allowable Subject Matter

7. Claims 8, 10-14, 19, 21, 22, 27, 29, 30, 33-35, 39 and 40 are allowed.
8. The following is a statement of reasons for the indication of allowable subject matter: The prior art of record, taken alone or in combination, fail to teach or fairly suggest, in conjunction with other limitations in the claims, an internal substratum having a first surface and a second surface, the internal substratum is provided over the separating sheet; an antenna provided over the first surface of the internal substratum; an integrated circuit device including a transistor, provided over and in contact with the first surface of the internal substratum; a wiring provided over the second surface of the internal substratum.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Yamazaki et al. (US 2001/0015256)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to APRIL A. TAYLOR whose telephone number is (571)272-2403. The examiner can normally be reached on Monday - Friday from 7:00AM - 3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven S. Paik can be reached on (571) 272-2404. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2887

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thien M. Le/
Primary Examiner, Art Unit 2887

/April Taylor/
Patent examiner
Art Unit 2887